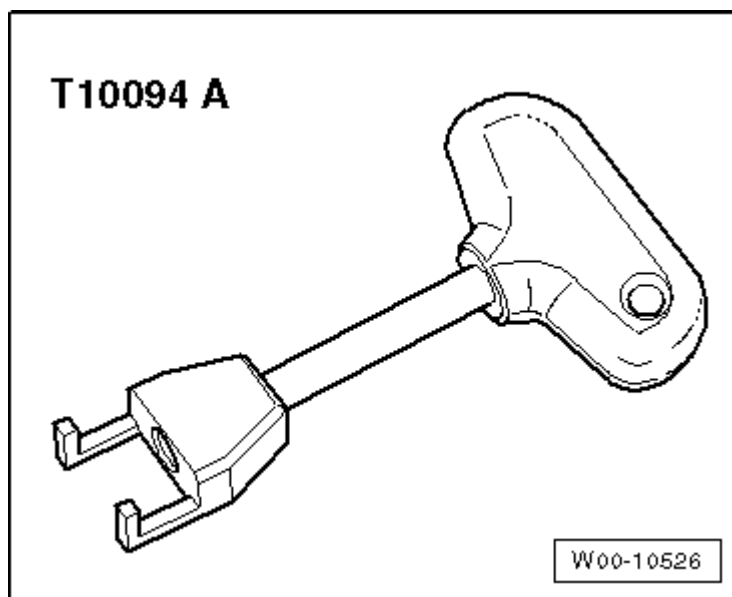


## Removing and installing camshaft housing

Special tools and workshop equipment required

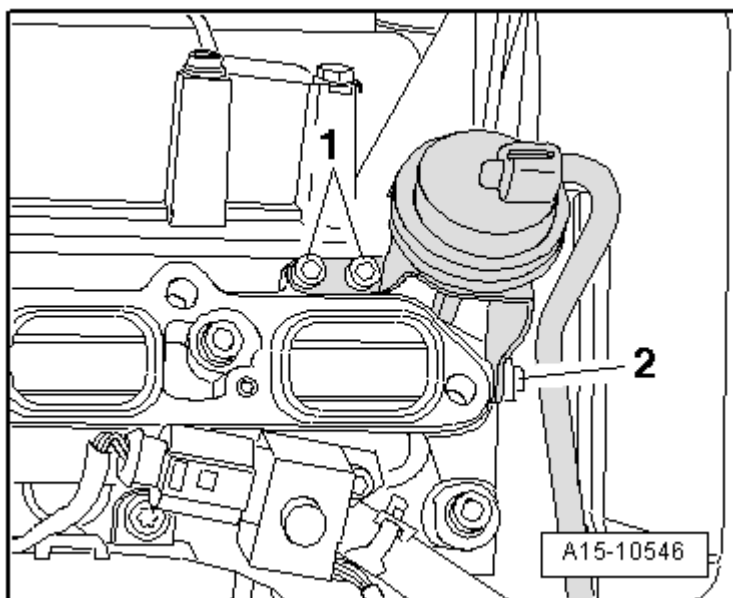
t Puller -T10094 A-

t Sealant remover, commercially available

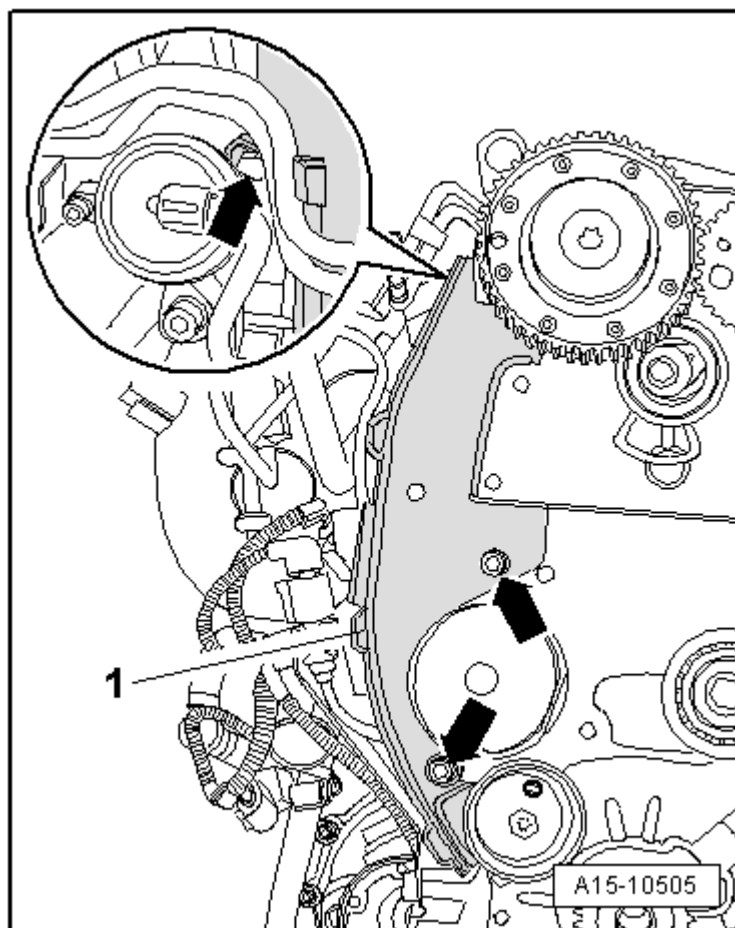
t Sealant → [Electronic parts catalogue](#)

## Removing

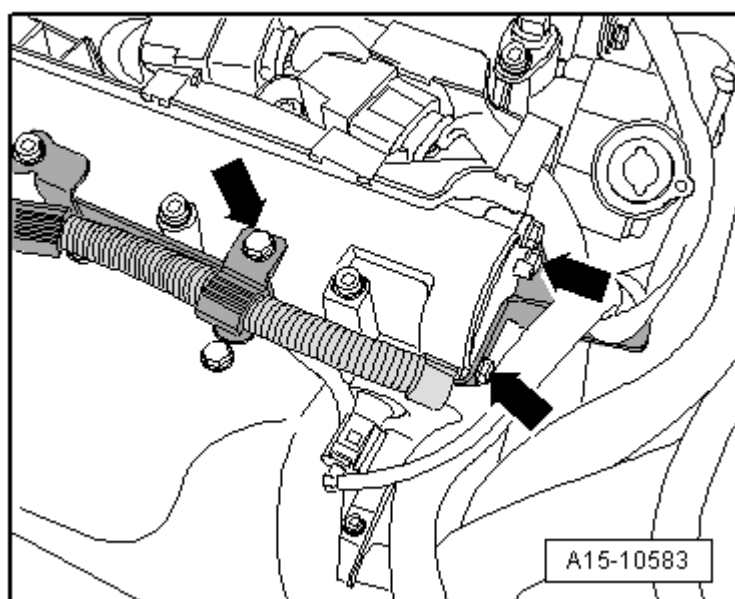
- Remove coupling drive toothed belt → [Chapter](#).
- Remove bolts -1- and loosen bolt -2-.
- Push vacuum unit for intake manifold flap slightly towards the rear.



- Remove bolt -top arrow- securing rear cover -1- for toothed belt.



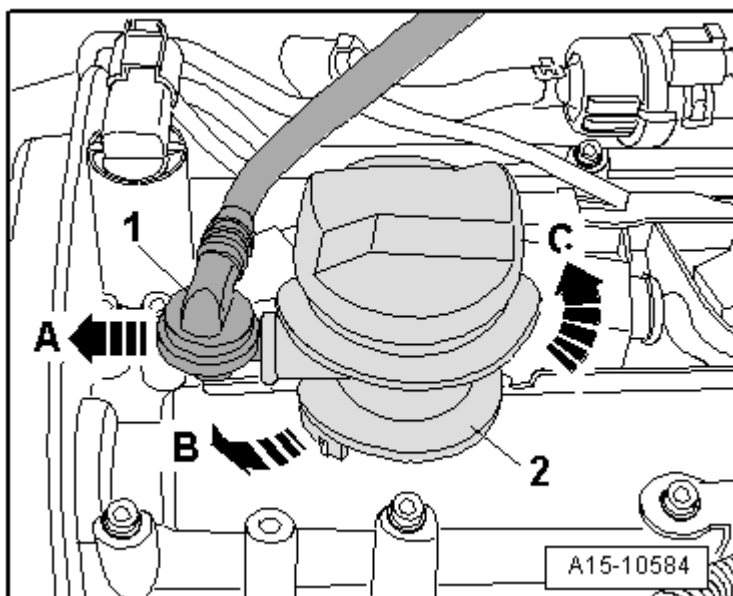
- Remove bolts -arrows- and move bracket with wiring to one side.



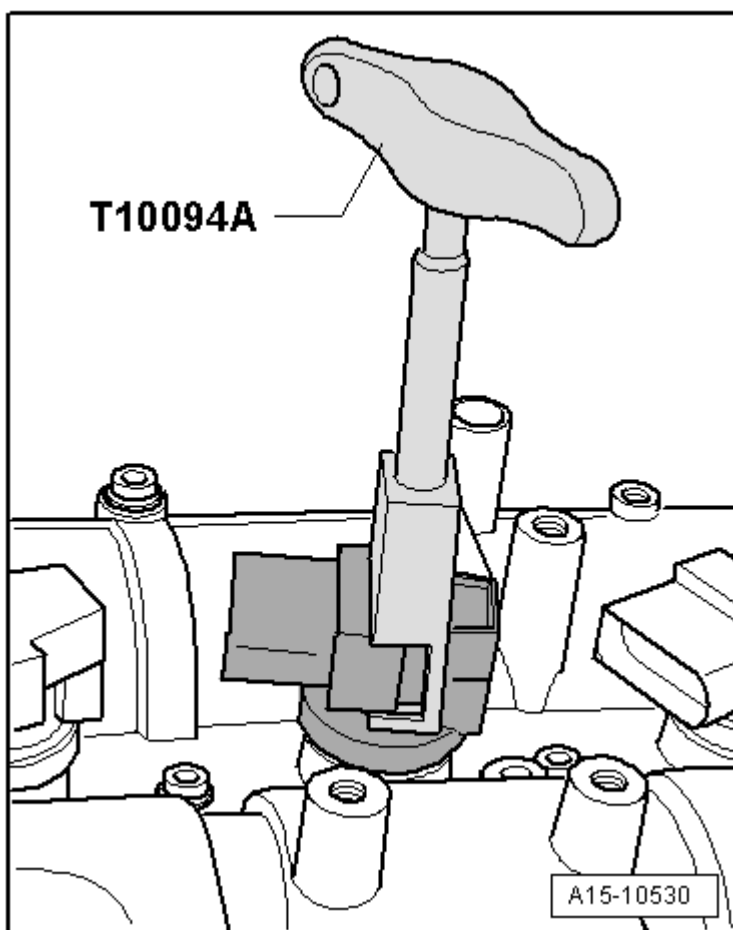
- Detach non-return valve -1- from oil filler neck -2--arrow A- and move to one side.

Release catch -arrow B-, turn oil filler

- neck in anti-clockwise direction - arrow C- and detach.



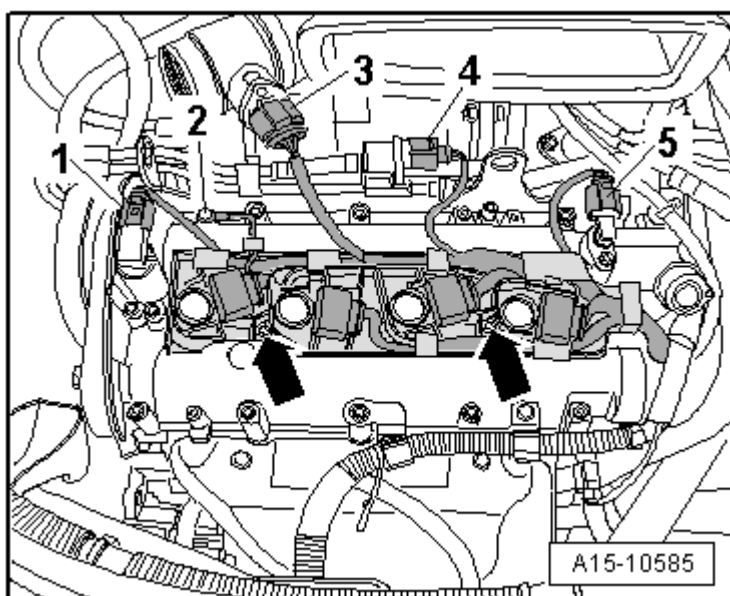
- Apply puller -T10094 A- to all ignition coils -arrow-, pull out ignition coils and at the same time unplug electrical connectors at ignition coils for cylinders 1 ... 4.



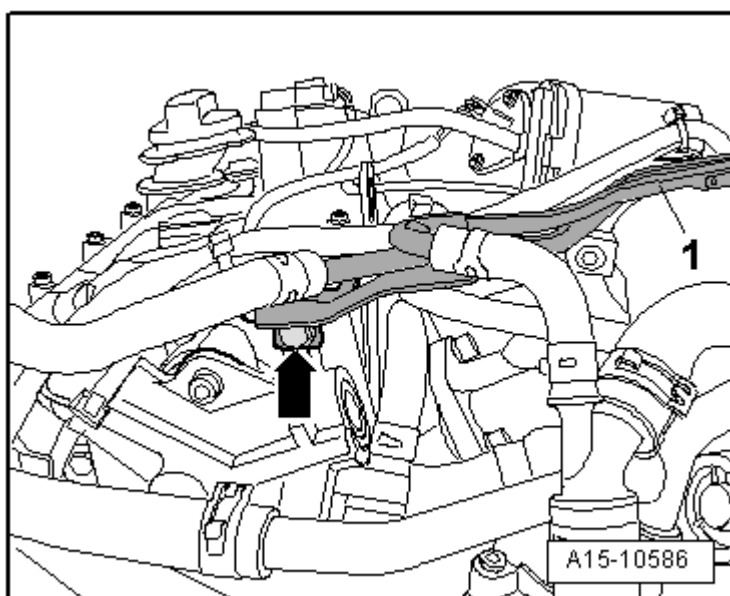
- Unplug electrical connectors:
- 1 - Camshaft control valve 1 -N205-
- 3 - Air mass meter -G70-
- 4 - Activated charcoal filter solenoid valve 1 -N80-

# 5 - Hall sender -G40-

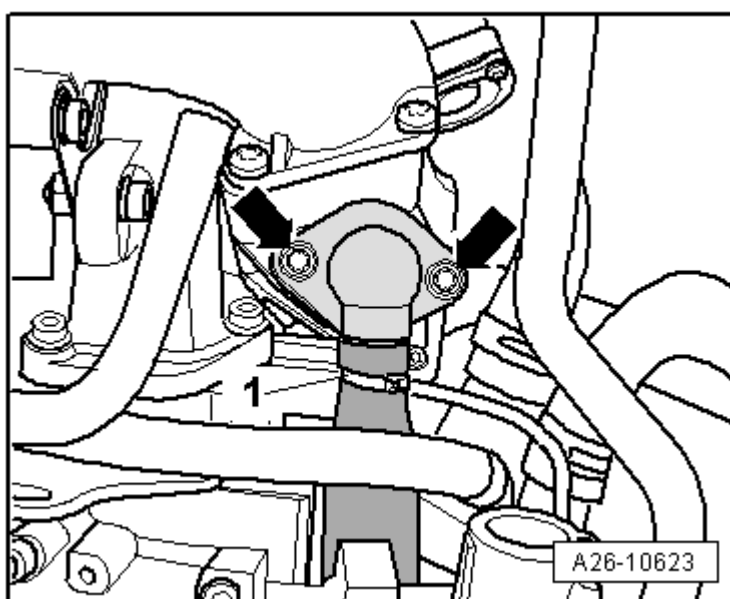
- Remove bolt -2- for earth wire and
- bolts -arrows- for wiring guide, move wiring guide with wiring harness to the left.



- Remove bolt -arrow- and push coolant pipes -1- to the side.



- Remove bolts -arrows- and push exhaust gas recirculation pipe -1- to the side.



- Detach fuel supply hose -2-.

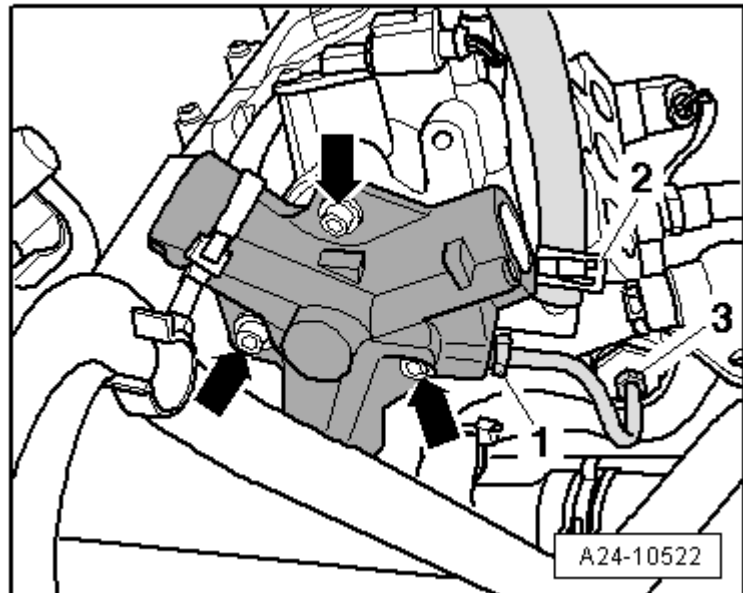
**WARNING**

The fuel system operates at extremely high pressure. This can cause injury.

The fuel pressure in the high-pressure section of the injection system must be reduced to a residual pressure prior to opening the system.

Wrap a clean cloth around the connection and carefully loosen the connection to allow the residual pressure to dissipate.

- Unscrew connections -1- and -3- and detach high-pressure pipe.



- Slacken camshaft housing bolts in the sequence -15 ... 1-.
- Carefully lift off camshaft housing.
- Mark original positions of roller rocker fingers and compensation elements for reinstallation.
- Remove roller rocker fingers together with compensation elements and put down on a clean surface.

**Installing**

1 Tightening torques → [Fig.](#)

1 No piston at „TDC“.

**Note**

- t Renew oil strainer in cylinder head.
- t Renew bolts for camshaft housing.

**Caution**

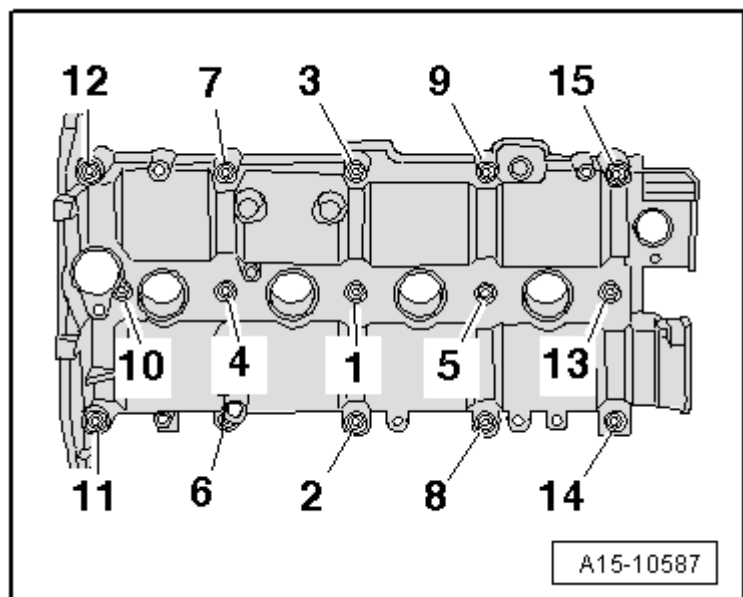
Protect lubrication system and bearings against contamination.

Cover exposed parts of the engine.

Remove sealant residue on cylinder head and camshaft housing using commercially available sealant remover.

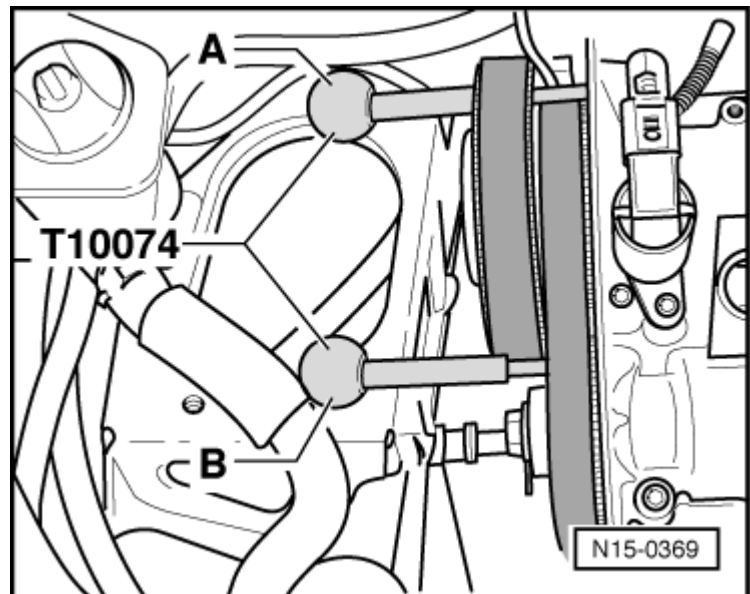
- Clean sealing surfaces; they must be free of oil and grease.
- Make sure that camshafts are locked as follows:

It should be possible to insert locking

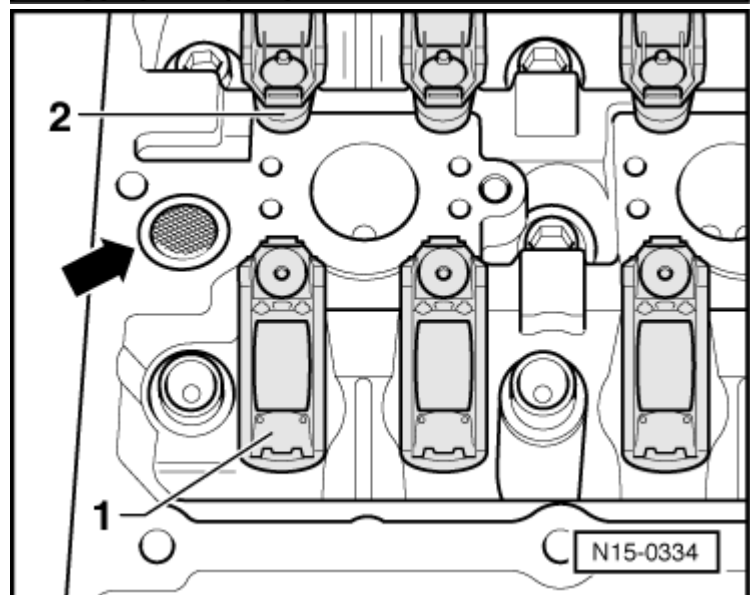


- 1 pin -A- through locking pin hole in inlet camshaft sprocket into corresponding hole in camshaft housing.

- It should be possible to insert locking pin -B- through locking pin hole in
- 1 exhaust camshaft sprocket into corresponding hole in camshaft housing.



- Ensure all roller rocker fingers contact
- the valve ends -1- correctly and are clipped into their respective support elements -2-.
  - Fit new oil strainer -arrow- into cylinder head.

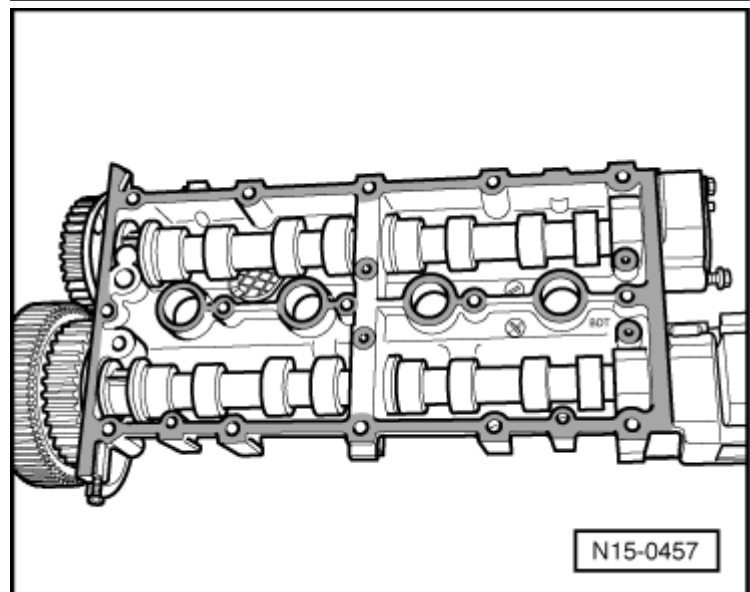


#### Caution

Make sure lubrication system is not clogged by excess sealant.

The sealant bead must not be thicker than specified.

- Apply a thin and even layer of sealant
- to the clean sealing surface of the camshaft housing at grey-shaded area shown in illustration.



- Screw in 2 threaded pins M6x70 -arrows- into cylinder head to guide camshaft housing.



### Caution

Make sure remnants of oil are removed before fitting, otherwise leakage can occur.

Make sure sealing surfaces are free of oil when fitting camshaft housing.

Carefully fit the camshaft housing

- vertically onto the threaded pins and dowel pins on cylinder head from above.



### Note

Make sure that camshaft housing is kept straight.

- Tighten camshaft housing bolts  
→ [Fig.](#)



### Note

After fitting camshaft housing, allow sealant to dry for approx. 30 minutes.

Remaining installation steps are carried out in reverse sequence; note the following:

- Install high-pressure pipe → [Rep. gr.24](#).
- Install exhaust gas recirculation pipe → [Chapter](#).
- Install cover (rear) for toothed belt → [Chapter](#).
- Install vacuum unit for intake manifold flap → [Rep. gr.24](#).
- Install coupling drive toothed belt → [Chapter](#).

